

Mis-numbered Component

A substitute Figure 3 is attached with the proposed change shown in red ink, thereby eliminating the duplicate use of the number 60. The AND gate is now designated by number 61. Also, the specification at page 11, line 25 is now corrected in the same manner so that the AND gate is designated by the number 61.

Additionally, applicants will submit formal drawings that address the Draftsperson's review upon receiving a Notice of Allowance.

Objections and Rejection Based on "axially aligned"

Applicants have cancelled all claim language referring to the motor armature being axially aligned with the crankshaft, without prejudice. Therefore, the objection to the drawings, objection to the specification, and rejection under 35 U.S.C. 112, first paragraph, are now moot.

Section 103 Rejections

Applicants respectfully submit that claim 1, as amended, is patentable over Warwick et al. (U.S. Patent No. 4,838,263). Claim 1, as amended, includes limitations not found in Warwick et al. First, Warwick does not disclose a "continuous air flow generator...". Warwick et al. only discloses a storage tank 130 for use in reinflating the vest during the expiration cycle of a breath when the user actuates switch 162 (column 6, lines 12-26). Storage tank 130 does not provide, and is not capable of providing, a continuous, baseline pressure as does the continuous air flow generator of the present claimed invention. As stated in the specification of the present application as originally filed, air flow generator 16 dynamically adjusts the pressure in air chamber 17 to provide a consistent pressure based on the user selected pressure, independent of leaks in the system, size of the user, condition of the bladder, and the repeated inhalation and expiration of the user. Maintaining the pressure also provides for increased efficacy of treatment. (See page 11, lines 3-11 of the specification.) The storage tank 130 of Warwick et al. does not perform this function and, consequently, does not provide the advantages of the present claimed invention.

Next, Warwick et al. does not disclose either the first or second feedback and control means found in claim 1. Warwick et al. is an open loop system where the user must manipulate switch 162 and tube 116 during each and every breathing cycle. At column 6, lines 3-26, Warwick et al. clearly discloses that the user must manipulate tube 116 to decrease vest pressure during each inhalation and manipulate switch 162 to increase vest pressure during each exhalation. This scheme is also shown in Figure 1. Requiring the user to manipulate a tube and switch for each breathing cycle has clear disadvantages. First, it requires training and good coordination for the patient to master this constant manipulation of tube and switch. Even with training and experience, it is unlikely that a typical user could ever be as efficient in maintaining the desired pressure setting compared to the feedback and control means' of the present invention. Next, the user must focus on the machine throughout the treatment to manipulate the tube and switch. Finally, an ill or weak person, or young child, is unlikely to be able to use the machine of Warwick et al. due to weakness, lack of coordination, or immaturity.

The first and second feedback and control means found in claim 1, allow the user to make the desired settings and do nothing more with the apparatus. The user can then watch TV, converse with others, etc. Also, the apparatus of claim 1 can be used with young, weak, or ill patients, where a family member or health care provider can make the predetermined settings for the user. This person can then go on to other tasks.

Further, a combination of Warwick et al. and Hayek still does not disclose the invention of claim 1. First, Hayek does not disclose the continuous air flow generator found in claim 1. Although Hayek may disclose a general reference to the concept of feedback (column 10, lines 25-36, as noted by the Examiner), there is no disclosure in Hayek on modifying storage tank 130 of Warwick et al. into a continuous air flow generator with associated feedback and control circuitry to continuously vary the output pressure in order to maintain a predetermined pressure delivered to the vest.

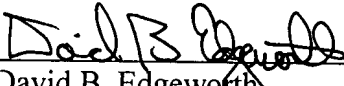
The remaining claims all depend from claim 1 and are allowable for the same reasons as claim 1. These claims are further allowable, a fortiori, for the additional limitations found therein.

Double Patenting Rejection

Attached is a terminal disclaimer obviating the double patenting rejection based on U.S. Patent No. 5,769,797.

Respectfully submitted,

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